



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|-----------------------|------------------|
| 10/706,776 | 11/12/2003 | John J. Richardson | MS304927.1/MSFTP490US | 8039 |

27195 7590 07/31/2007
AMIN. TUROCY & CALVIN, LLP
24TH FLOOR, NATIONAL CITY CENTER
1900 EAST NINTH STREET
CLEVELAND, OH 44114

| |
|----------|
| EXAMINER |
|----------|

SEYE, ABDOU K

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2194

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

07/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/706,776

Applicant(s)

RICHARDSON, JOHN J.

Examiner

Abdou Karim Seye

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-20 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-20 and 22-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM J. THOMSON
SENIOR PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed on May 23, 2007 has been received and entered. The amendment amended Claims 1, 20, 22 and 26, and cancelled claims 7 and 21. The currently pending claims considered below are Claims 1-6, 8-20 and 22-30.

Claim Rejections - 35 USC § 101

2. The amendment filed on May 23, 2007, has not overcome the rejections to Claims 1-18, 20 under 35 U.S.C. 101, in paragraph 3 of the previous office action by canceling and amending these claims. The claimed computer-readable medium in claim 1 is not included as an element of the system, that could be an intended use of the system. Therefore, the examiner hereby does not withdraws those rejections.

Appropriate corrections are required on the above claims.

Claim Rejections - 35 USC § 112

3. The amendment filed on May 23, 2007, has raised new rejections to Claims 1-18, 20 under 35 U.S.C. 112, second paragraph by amending claims 1 and 20. The examiner notes that the element "comprising" on these claims is confusing. The terms: "the system comprising " and " the computer comprising " makes these claims unclear as to what really the system that the applicant is claiming constitutes. Therefore, these claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

Art Unit: 2194

failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Appropriate clarification is required on the above claims:

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103 (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 8-11, 18-20 and 22-30 are rejected under 35 U.S.C. 103 (a) as being unpatentable over **Allavarpu et al. (US 6839748)** in view of Avery et al. (US 20050005259).

Claim 1, 19, 20, 22-23 and 26 Allavarpu teaches a computer-based event handling system, method and product comprising a computer processor for executing the following software components, the system is recorded on a computer-readable medium and capable of execution by a computer, comprising:

a framework component that supplies classes of objects that can raise events (fig. 3 col. 14, lines 5-28); and

Art Unit: 2194

a synchronization component that controls in part synchronization of access to data based on categorization of at least one of objects and instances defined by the framework (fig. 10/1002b, col. 22, lines 4-14; col. 10, lines 58-65), but does not explicitly disclose providing automatic serialization for events raised by the classes of objects; and a configuration component that enables the client component to disable or enable automated serialization and synchronization. However, in the same field of endeavor, Avery discloses a synchronization that may occur automatically as the result of the direction of a client application component and a synchronization module for serializing objects data in (FIG. 2B, paragraph 34). It would be obvious to one having ordinary skill in the art at the time the invention was made to modify Allavarpu's invention with Avery's invention in order to provide an optimal application flow or work flow activities. One would have been motivated to synchronize and serialize data object in order to optimize efficiency within an organization (Avery; paragraph 0020).

Claim 2, Allavarpu further teaches that the framework is supplied by an operating system or as a library for use by the operating system, wherein at least one of the framework and synchronization component automatically manages or serializes the events in order that a client component can process client-specific tasks (fig. 12, col. 23, lines 32-67 and col. 24, lines 1-10; col. 20, lines 25-55; col. 22, lines 28-34).

Claim 3, Allavarpu further teaches that the client component is a device driver (fig. 7, col. 16, lines 32-50).

Claim 6, Allavarpu further teaches that the object provides a handle to enable the client component to manipulate the object and request additional local memory to be allocated for processing client tasks (col. 4, lines 41-44; col. 4, lines 55-60; fig. 13/208, col. 25, lines 5-7; event handler for client request).

Claim 8, Allavarpu further teaches that the configuration component includes one or more Application Programming Interfaces to facilitate selection of serialization and synchronization features (fig. 10/206).

Claim 4, Allavarpu teaches that the events are managed by the framework or synchronization component to allow one or more aspects of the events to occur in a one-time manner and in accordance with a serialized process (fig. 3, col. 12, lines 12-15 ;unique event number in the event pool/registry).

Claim 5, Allavarpu further teaches that the events are processed as part of a request (fig. 8/802 and 706, col. 17 , lines 45-50).

Claim 9, Allavarpu teaches that the framework component provides events to a device

Art Unit: 2194

driver though a series of callback functions registered by the device driver (col. 19, lines 1-5).

Claim 10, Allavarpu further teaches that the device driver generally queues a handler or starts Input/Output (I/O) on the handler, marking state, and then returns (col. 7, lines 25-30; col. 14, lines 65-67).

Claim 11, Allavarpu teaches that the framework component is structured in accordance with state full objects that allow a device driver to register events, and provide API's (col. 10, lines 35-50; col. 24, lines 1-8; operating system support with system call for processing client request).

Claim 18, Allavarpu teaches that one or more data packets that are employed to facilitate communications between the components via at least one of a local processing system, a local network system, and a remote network system (paragraph 68).

As per claims 24 , it is rejected for the same reasons as claim 7 above.

Claim 25, Allavarpu further teaches providing a local memory to facilitate client-specific processing (fig. 1b/104).

As per claims 27, it is rejected for the same reasons as claim 8 above.

Claim 28, Allavarpu further teaches that the API includes at least one of a scope object, a scope device and a scope specified data structure (col. 1 lines 65-67 and col. 2, lines 1-11, lines 45-64).

Claims 29, Allavarpu further teaches that the API includes at least one of an execution level passive, an execution level dispatch, and an execution level specified data structure (fig. 9, col. 18, lines 1-23).

Claim 30, Allavarpu further teaches, an acquire lock data structure and a release lock data structure (col. 6, lines 1-21).

6. Claims 12-17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over **Allavarpu et al. (US 6839748)** in view of Avery et al. (US 20050005259) and in further view of Mandal et al. (US 20040117369).

Claim 12-17, Allavarpu teaches a computer-based event handling system comprising a framework component, a synchronization component that preserve the order of the events as in claim 1 above and a main thread running that starts a child process for

Art Unit: 2194

initialization and establishing communication channels with an event registry server (col. 16, lines 15-24).

In the same field of endeavor, Avery presents an invention that relates to automated serialization and synchronization of data objects using a synchronization component module (FIG. 2B, paragraph 34).

Therefore, it would be obvious to a person of ordinary skill in the art at the time of the invention to provide an optimal application flow or work flow activities as taught by Avery et al in the system of Allavarpu in order to optimize efficiency within an organization.

The combination of Allavarpu and Avery et al as discussed above disclose the limitation claimed, but merely disclose the claimed element "pipelining".

In the same field of endeavor, Mandal clearly discloses a service processor system and method of user/client command requests wherein events are associated with pipeline (fig. 21, paragraph 198); wherein the pipeline includes a dispatch component (fig. 21/2138); wherein the pipeline employs a series of stages that a request traverses (fig. 21, paragraph 198 and 199) ; objects within each stage of the pipeline that raise an event to a device driver through an event callback to allow the driver to have control of which action to take, or provide some default action that may result in the requests completion, or forwarding to the next stage(method steps of fig. 18;19 and 20); detecting request failure and error handling (paragraph 44,47, 62 and 68); notifying the user client for failure(paragraph 64).

Art Unit: 2194

Therefore it would be obvious to one having ordinary skill in the art at the time the invention was made to not only use automated serialization and synchronization of data objects, but also to include these elements: events associated with pipeline; wherein the pipeline includes a dispatch component ; wherein the pipeline employs a series of stages that a request traverses; objects within each stage of the pipeline that raise an event to a device driver through an event callback to allow the driver to have control of which action to take, or provide some default action that may result in the requests completion, or forwarding to the next stage; detecting request failure and error handling ; notifying the user client for failure as taught by Mandal in the system of Allavarpu as modified by Avery et al, in order to save significant system resource, therefore to enhance performance of an overall system.

Response to Arguments

7. Applicant's arguments with respect to claims 1-6, 8-20 and 22-30 have been considered but are moot in view of the new ground(s) of rejection. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

Russel et al (20040039964) discloses programmatically serializing complex object using self-healing techniques.

Blevins. (20040221261) discloses collaborative business plug-in framework.

Carlson et al. (20030056022) discloses a system and method for defining configuring and using dynamic persistent Java classes.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdou Seye whose telephone number is (571) 270-1062. The examiner can normally be reached on Mon - Fri, 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

AKS
July 20, 2007


WILLIAM THOMSON
SENIOR PATENT EXAMINER
TECHNOLOGY CENTER 2100